



Determining the Ideal Lockdown Location

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Coursera Capstone Project

Current Status

- The first case of Covid-19 in Ireland was reported in February 2020.
- Since then, residents of Ireland have been placed into Level 5 of the *Living with Covid Plan* three times, totalling over seven months.
- Level 5 mandates that many amenities must close, such as gyms, restaurants, pubs, shops, and other non-essential businesses.
- It also includes a restriction that residents may not travel beyond a radius of 5km from their homes.

Neighborhood Desirability

Pre-Covid:

- Commute time to work
- Public transport options
- Proximity to amenities or nightlife
- ...
- Cost of rent

In Level 5:

- Proximity to outdoor amenities
- Number of nearby supermarkets
- The spread of Covid-19 in the community
- Cost of rent

As such, many people renting in Dublin may be looking to relocate for the duration of the pandemic to a more desirable area with more outdoor spaces and cheaper rent.

Data Acquisition

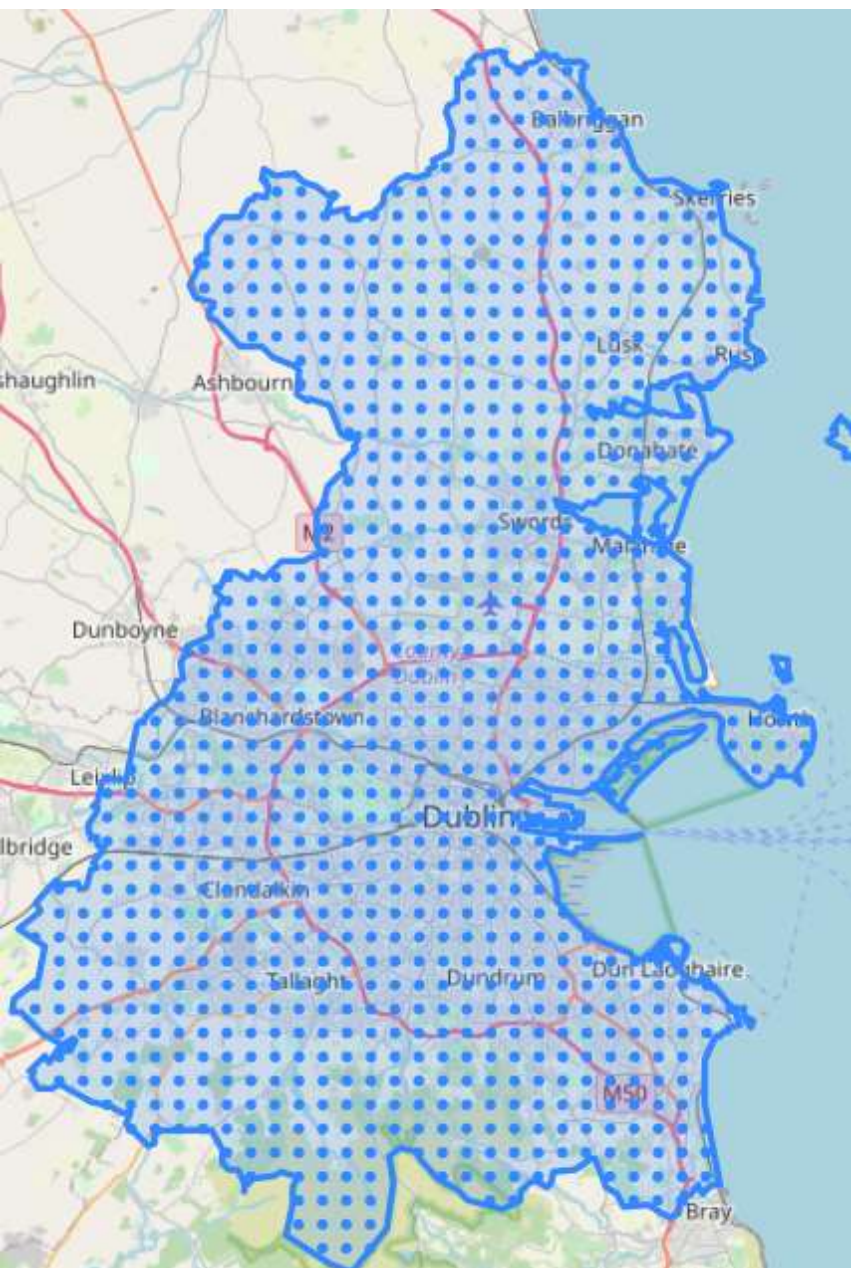
Factors that may impact their decision are:

- The number of amenities within a 5km radius
- The number of amenities within a 5km radius that are open during Level 5 lockdown
- The average rent in the area



- The latest 14-Day Covid-19 Incidence Rate in the area



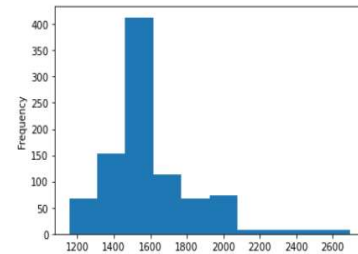
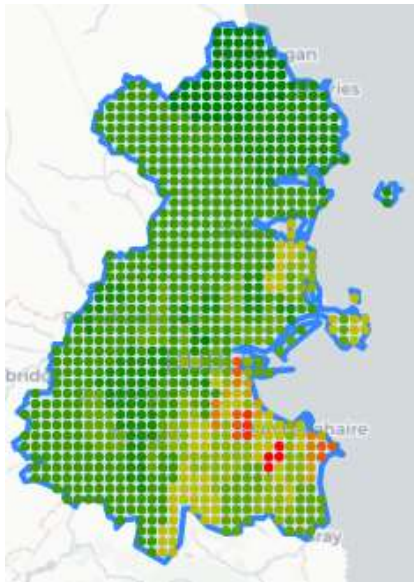


Neighborhood definition

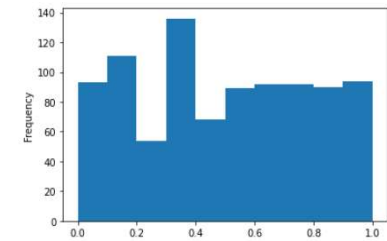
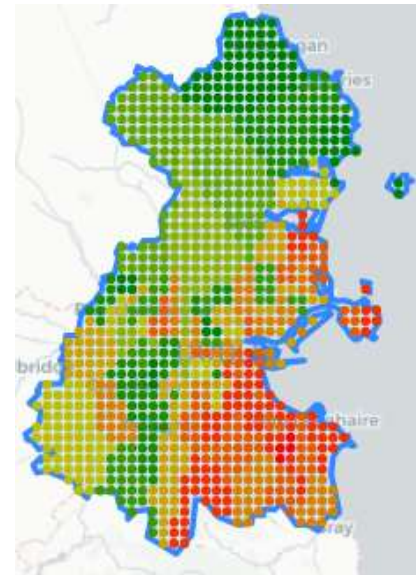
- A grid of neighborhoods spaced 1km apart was created using the Dublin shapefile

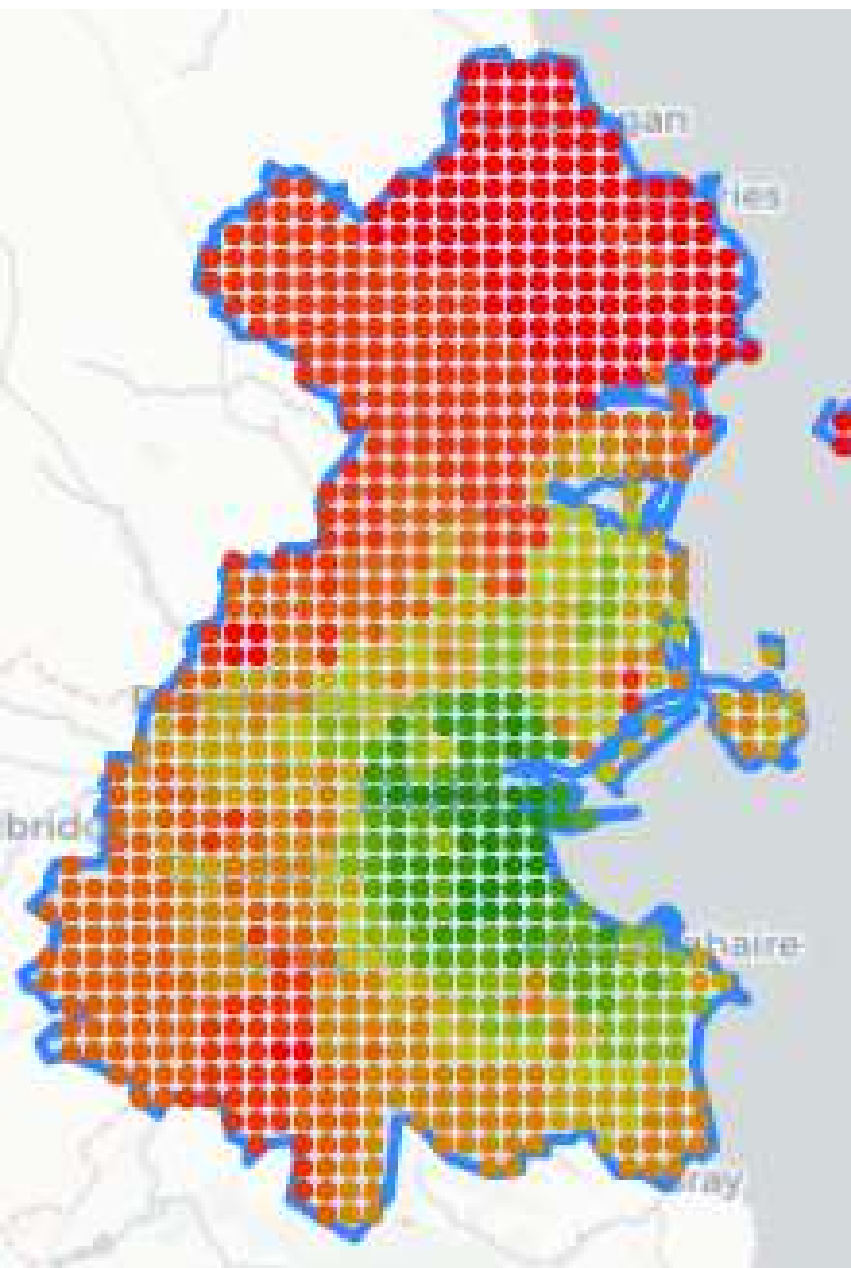
Scaling rent

- Before scaling

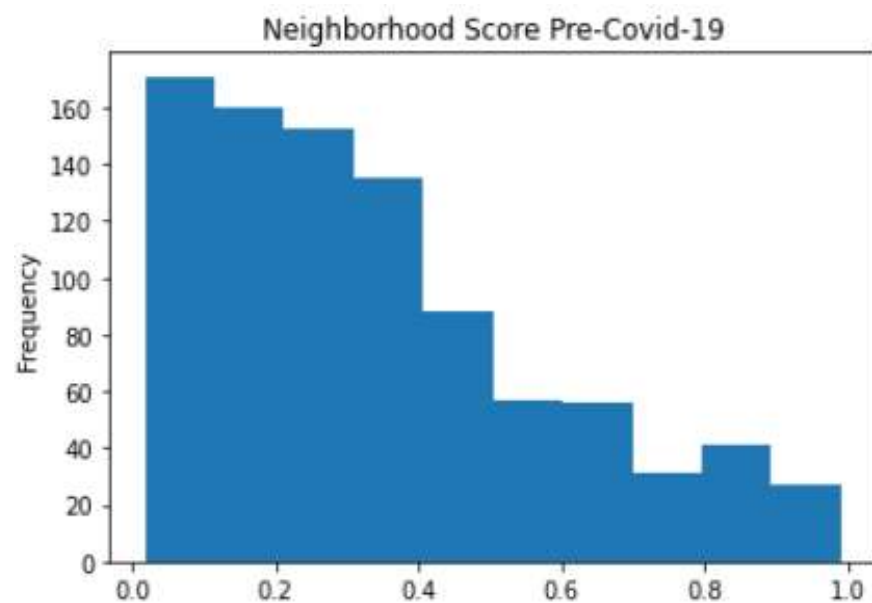


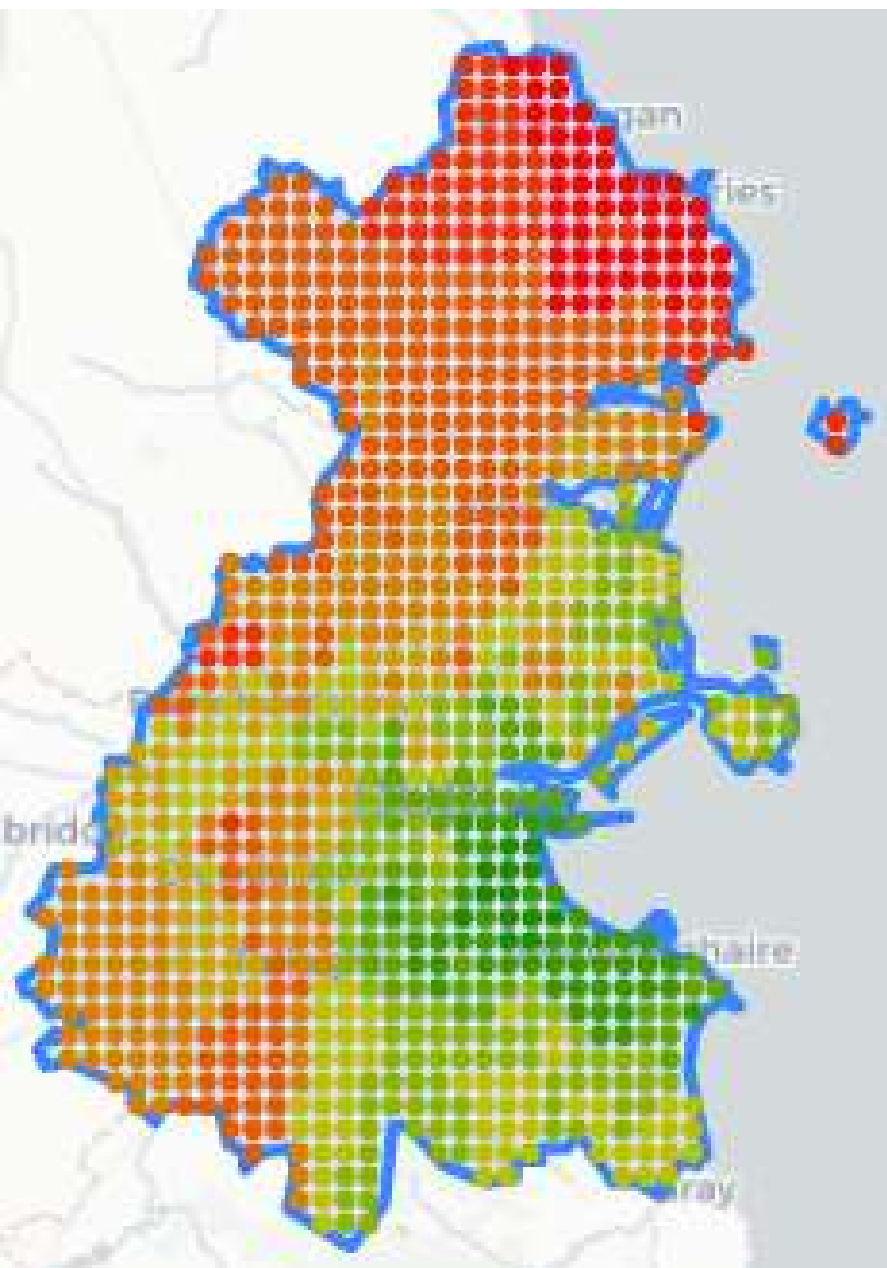
- After scaling



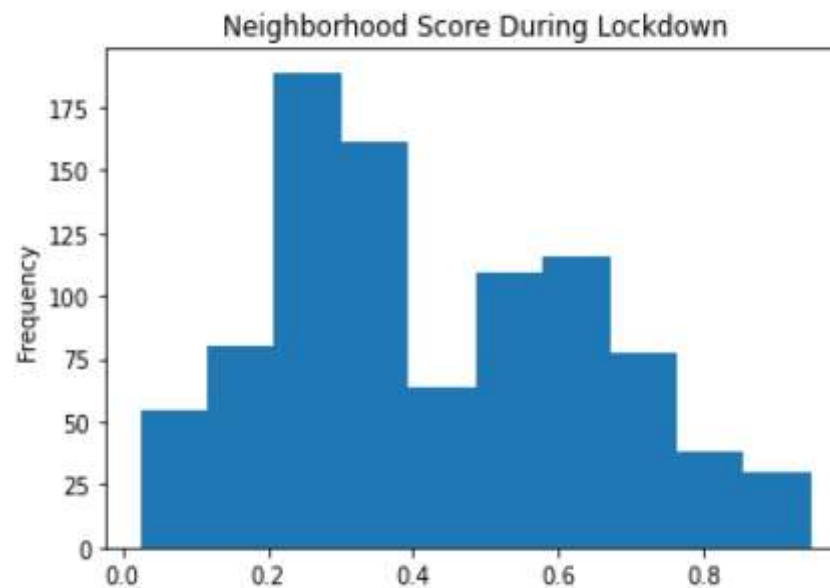


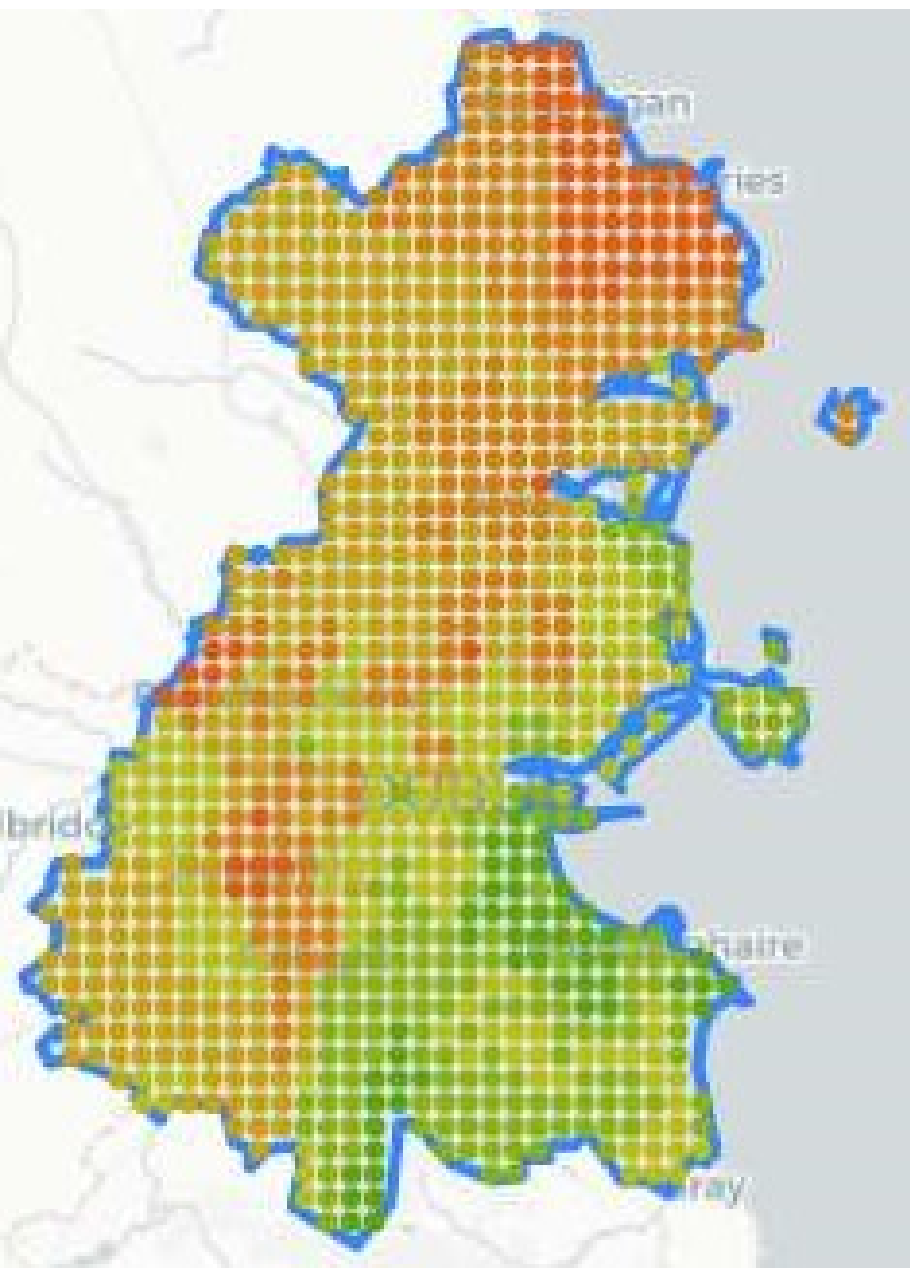
Neighborhood Score Pre-Covid-19



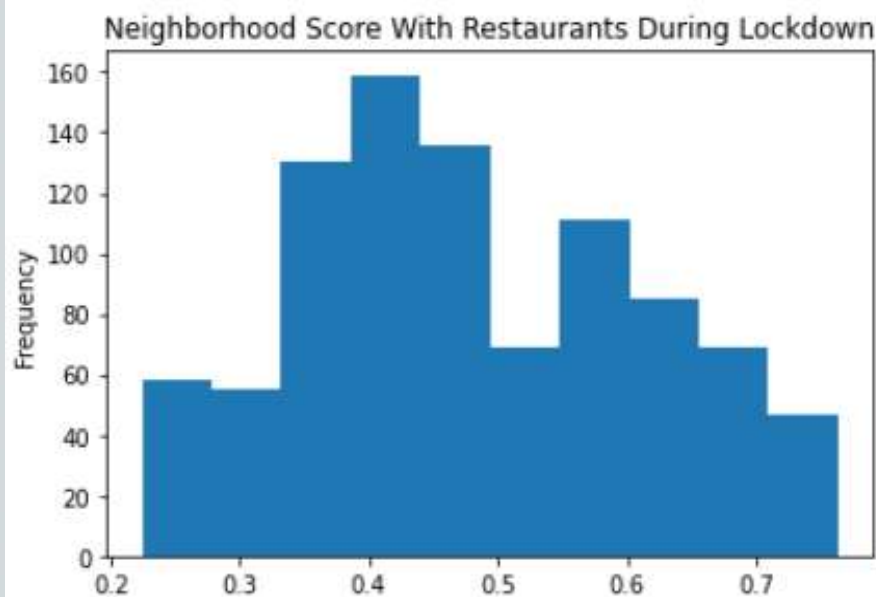


Neighborhood Score During Lockdown





Neighborhood Score With Restaurants During Lockdown



Conclusion

- It was observed that the spread of desirability is significantly wider during Level 5 Lockdown, when the suburbs can more easily compete with the city centre.
- Note: The scoring system used for this project is subjective, and will vary depending on a person's tastes. As such, a next step for this project could be to determine a person's tastes, perhaps from a quiz, and use that information to give them a more personalised result